

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

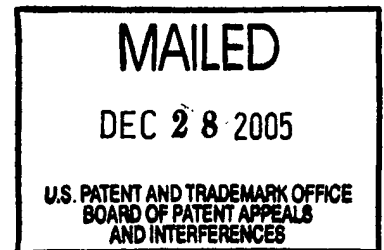
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEF THEURER
and BERNHARD LICHTBERGER

Appeal No. 2006-0023
Application No. 09/501,251

HEARD: DECEMBER 14, 2005



Before HAIRSTON, LEVY, and SAADAT, Administrative Patent Judges.
HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 and 3.

The disclosed invention relates to a method of surveying a track section between a mobile measuring vehicle and a stationary measuring vehicle. An optical measuring beam emitted by an emitter mounted on the stationary vehicle is received by a receiving unit mounted on the mobile vehicle. At the start of each measuring cycle, position coordinates of the emitter are

determined with the aid of a GPS receiver mounted on the stationary vehicle. The position coordinates of the emitter are determined relative to a fixedly installed GPS reference station located adjacent the noted track section.

Claim 1 is the only independent claim on appeal, and it reads as follows:

1. A method of surveying a track, comprising the steps of:
 - a) positioning a mobile measuring vehicle and a stationary measuring vehicle at end points of a track section to be measured during a measuring cycle, the mobile measuring vehicle being designed for mobility along a reference line in the form of an optical measuring beam between an emitter mounted on the stationary measuring vehicle and a receiving unit mounted on the mobile measuring vehicle and supported by flanged rollers on the track section;
 - b) determining, at the start of each measuring cycle, position coordinates of the emitter mounted on the stationary measuring vehicle, with the aid of a GPS receiver mounted thereon, relative to a fixedly installed GPS reference station located adjacent the track section to be measured, the coordinates of the GPS reference station being known within a terrestrial coordinate system;
 - c) aligning the reference line with the mobile measuring vehicle on the basis of the position data determined with the aid of the GPS receiver mounted on the stationary measuring vehicle; and
 - d) registering as a correction measurement value a change in position of the receiving unit relative to the reference line in dependence on an actual track position of the receiving unit transmitted by the flanged rollers, as the mobile measuring vehicle advances in the direction towards the stationary measuring vehicle to survey the track, without the aid of the GPS receiver.

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The references relied on by the examiner are:

Plasser et al. (Plasser)	3,821,933	July 2, 1974
Ingensand et al. (Ingensand)	5,233,357	Aug. 3, 1993

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 and 3.

Plasser discloses a stationary emitter 2 that transmits a beam 4 to a movable receiver 5 (Figures 1 and 2). The position of the emitter 2 and the beam 4 with respect to a section of track 1 is determined relative to a fixed point 3 (column 3, lines 11 through 14). According to Plasser, the fixed point 3 can be "a telegraph pole, a marking post or the like" (column 3, lines 14 and 15). Thus, Plasser lacks both a GPS receiver mounted on the stationary vehicle, and a GPS reference station located adjacent the track section to be surveyed.

The reference to Ingensand was cited by the examiner for the teaching of the use of GPS receivers in a surveying system (answer, page 4).

According to the examiner (answer, page 5):

It would have been obvious to one having ordinary skill in the art to modify the invention of Plasser to

include using a GPS receiver in order to determine the position of the emitting surveying apparatus, as taught by Ingensand, because Plasser teaches a time-consuming inaccurate method for determining the position of the mobile device based upon telegraph poles and marking posts (column 2, lines 27-32) and Ingensand suggests that the combination would have provided a method for determining this initial position with a faster, more convenient method as well as with increased accuracy (column 1, lines 21-30). Further, the invention of Plasser was published in 1974. At this time GPS devices were not readily available, however, one having ordinary skill in the art would recognize that since the publication of the invention of Plasser, GPS has become a well known, accurate, and convenient system for determining the exact position of devices, as would have been applicable in the invention of Plasser.

Appellants argue (brief, pages 5 through 9) that the examiner has resorted to impermissible hindsight in order to find a reason to modify the teachings of Plasser with those of Ingensand. The appellants also argue (brief, page 7) that "[n]othing in the applied prior art suggests this desirability of the modification." With respect to the examiner's statements concerning the shortcomings in the teachings of the Plasser system, the appellants argue (reply brief, page 3) that they fail to "find any support for these assertions and considers [sic, consider] these assertions mere speculation."

We agree with appellants' argument. Nothing in the record supports the examiner's conclusions that the Plasser system is

both time consuming and inaccurate and that the Ingensand system is a faster, more accurate and more convenient system than the Plasser system. The mere speculation of the examiner as to the benefits as well as the disadvantages of the applied prior art can not serve as the basis of a finding of obviousness. Stated differently, only the objective teachings of the prior art or knowledge generally available to one of ordinary skill in the art can be used by the examiner in an obviousness determination. See In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002). Even if the reference teachings are combined in the manner suggested by the examiner, the combined teachings of the references would still not show both a GPS receiver as well as a GPS reference station operating together with respect to the stationary vehicle.


In summary, the obviousness rejection of claims 1 and 3 is reversed for lack of a prima facie case of obviousness.

DECISION

The decision of the examiner rejecting claims 1 and 3 under 35 U.S.C. § 103(a) is reversed.


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REVERSED


KENNETH W. HAIRSTON)
Administrative Patent Judge)


STUART S. LEVY)
Administrative Patent Judge)

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES
)


MAHSHID D. SAADAT)
Administrative Patent Judge)

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